

What is claimed is:

1. A microfluidic switch for stopping a liquid flow during a time interval, comprising:

a switch having at least one first channel and at least one second channel;

the first channel and the second channel having a common end area;

the first channel at a transition to the common end area has a means for stopping of a liquid flow flowing in the first channel;

the stopping means can be controlled by means of a liquid flow flowing in the second channel for continuing the liquid flow in the first channel.

2. The switch as claimed in claim 1, wherein the stopping means are liquid-controlled microvalves.

3. The switch as claimed in claim 1, wherein the stopping means are capillary stops.

4. The switch as claimed in claim 3, wherein the capillary stop has suddenly changing geometrical properties.

5. The switch as claimed in claim 3, wherein the capillary stop has suddenly changing geometrical properties of the surface.

6. The switch as claimed in claim 1, wherein the first channel and the second channel have a common starting area.

7. The switch as claimed in claim 6, wherein the common starting area is located upstream or downstream of a cavity or a chamber.

8. The switch as claimed in claim 1, wherein the first channel and the second channel have separate starting areas.

9. The switch as claimed in claim 1, wherein the first channel and the second channel are filled with liquids separately from one another.

10. The switch as claimed in claim 1, wherein the first channel is shorter than the second channel.

11. The switch as claimed in claim 1, wherein the first channel has a greater capillarity than the second channel.

12. The switch as claimed in claim 1, wherein the second channel has a preferably adjustable means for deceleration of a liquid flow.

13. The switch as claimed in claim 12, wherein the deceleration means are chokes.

14. The switch as claimed in claim 6, wherein one inlet channel is connected upstream of the common starting area (5).

15. The switch as claimed in claim 6, wherein one outlet channel is connected downstream of the common starting area.

16. The switch as claimed in claim 14, wherein the first channel, the second channel, the inlet channel and/or the outlet channel have sections with one or more cavities, chambers and/or cavities and thus form channel systems.

17. The switch as claimed in claim 14, wherein the first channel, the second channel, the inlet channel and/or the outlet channel have meander-shaped sections.

18. The switch as claimed in claim 16, wherein there are reagents in one or more of the cavities.

19. The switch as claimed in claim 15, wherein the outlet channel system has a branching.

20. The switch as claimed in claim 6, wherein the common end area is made such that the liquid, which is emerging from the first channel, and the liquid, which is emerging from the second channel, lie laminarly next to one another.

21. The switch as claimed in claim 1, wherein the switch has a plurality of first channels.

22. The switch as claimed in claim 1, wherein the switch has a plurality of second channels.

23. A carrier, especially a sample carrier, wherein the carrier has a switch as claimed in claim 1.

24. A process for operating a switch as claimed in claim 1, wherein:

transport of a first liquid in a first channel up to the stopping means,

time-delayed transport of a second liquid in the second channel to the common end area,

triggering of the stopping means by a second liquid for further transport of the first liquid beyond the stopping means.

25. The process as claimed in claim 24, wherein transport of the liquid in the first channel and/or in the second channel by capillarity.

26. The process as claimed in claim 24, wherein the second liquid is a highly wetted liquid.